Amendments to the Claims:
The claims currently pending follow:

1. (Cancelled) A composition comprising:

a plurality of particles comprising a surfactant having an HLB value of less than about 6.0 units associated with a functional composition and a polymer, with the particles having an average diameter of less than about 100 nanometers as measured by atomic force microscopy of the particles following drying of the particles, wherein the functional composition is a member of the group consisting of a bioactive component and a diagnostic agent.

2. (Cancelled) The composition of claim 1 wherein the surfactant is a non-ionic surfactant.

3. (Cancelled) The composition of claim 1 wherein the surfactant has an HLB value of less than about 5.0 units.

4. (Cancelled) The composition of claim 3 wherein the average diameter of the particles is less than about 50 nm.

5. (Cancelled) The composition of claim 1 wherein the functional composition is a member of the group consisting of peptides, proteins, and carbohydrates.

6. (Cancelled) The composition of claim 5 wherein the average diameter is less than about 50 nm.

7. (Cancelled) The composition of claim 1 wherein the functional composition is cisplatin.

8. (Cancelled) The composition of claim 1 wherein the functional composition is inorganic.

9. (Cancelled) The composition of claim 1 wherein the functional composition is a diagnostic agent that is a fluorescent molecule.

10. (Cancelled) The composition of claim 1 wherein the functional composition is a bioactive component that comprises a hydrophilic component.

11. (Cancelled) The composition of claim 10 wherein the bioactive component is condensed.

12. (Cancelled) The composition of claim 1 wherein the functional composition is a bioactive component that is a member of the group consisting of aptamers, mini-chromosomes, steroids, adrenergic, adrenocotical steroid, adrenocortical suppressant, aldosterone antagonist, and anabolic agents; analeptic, analgesic, anesthetic, anorectic, anti-acne agents; anti-adrenergic, anti-allergic, anti-amebic, anti-anemic, and anti-anginal agents; anti-arthritic, anti-asthmatic, anti-atherosclerotic, antibacterial, and anticholinergic agents; anticoagulant, anticonvulsant, antidepressant, antidiabetic, and antidiarrheal agents; antidiuretic, anti-emetic, anti-epileptic, antifibrinolytic, and antifungal agent; antihemorrhagic, inflammatory, antimicrobial, antimigraine, and antimiotic agents; antimycotic, antinauseant, antineoplastic, antineutropenic, and antiparasitic agents; antiproliferative, antipsychotic, antirheumatic, antiseborrheic, and antisecretory agents; antipasmodic, antihrombotic, anti-ulcerative, antiviral and appetite suppressant agents.

13. (Cancelled) The composition of claim 1 wherein the functional composition is a bioactive component that is a member of the group consisting of blood glucose regulator, bone resorption inhibitor, bronchodilator, cardiovascular, and cholinergic agents; fluorescent, free oxygen radical scavenger, gastrointestinal motility effector, glucocorticoid, and hair growth stimulant agent; hemostatic, histamine H_2

receptor antagonists; hormone; hypocholesterolemic, and hypoglycemic agents; hypolipidemic, hypotensive, and imaging agents, immunizing and agonist agents; mood regulators, mucolytic, mydriatic, nasal decongestant; neuromuscular blocking agents; neuroprotective, NMDA antagonist, non-hormonal sterol derivative, plasminogen activator, and platelet activating factor antagonist agent.

14. (Cancelled) The composition of claim 1 wherein the functional composition is a bioactive component that is a member of the group consisting of platelet aggregation inhibitor, psychotropic, radioactive, scabicide, and sclerosing agents; sedative, sedative-hypnotic, selective adenosine A1 antagonist, serotonin antagonist, and serotonin inhibitor agent; serotonin receptor antagonist, steroid, thyroid hormone, thyroid hormone, thyroid inhibitor agent; thyromimetic, tranquilizer, amyotrophic lateral sclerosis, cerebral ischemia, Pagel's disease agent; unstable angina, vasoconstrictor, vasodilator, wound healing, and xanthine oxidase inhibitor agent; and immunological agents.

15. (Cancelled) The composition of claim 1 wherein the functional composition is a bioactive component that comprises a member of the group consisting of antigens isolated from pathogens, viral antigens, fungal antigens, parasitic antigens, and inactivated pathogenic organisms.

16. (Cancelled) The composition of claim 1 wherein the surfactant has a critical micelle concentration of less than about 200 micromolar.

17. (Cancelled) The composition of claim 1 further comprising a biocompatible oil.

18. (Cancelled) The composition of claim 1 wherein the functional composition is a bioactive component that comprises a polynucleic acid, oligonucleotide, antisense molecule, or a polypeptide.

19. (Cancelled) The composition of claim 18 wherein the bioactive component is condensed.

20. (Cancelled) The composition of claim 19 wherein the composition further comprises a water-miscible solvent.

21. (Cancelled) The composition of claim 1 wherein the surfactant is selected from the group consisting of 2, 4, 7, 9-tetramethyl-5-decyn-4, 7-diol, molecules containing an acetylenic diol portion, and blends of 2, 4, 7, 9-tetramethyl-5-decyn-4, 7-diol.

22. (Cancelled) The composition of claim 1 wherein the particles further comprise a cell recognition component.

23. (Cancelled) The composition of claim 22 wherein the cell recognition component is a ligand, peptide hormone, or an antibody.

24. (Cancelled) The composition of claim 23 wherein the cell recognition component comprises tenascin, hyaluronan, or polyvinylpyrrolidone, or a fragment thereof.

25. (Cancelled) The composition of claim 24 wherein the average diameter of the particles is less than about 50 nm.

26. (Cancelled) The composition of claim 24 wherein the cell recognition component comprises tenascin or a fragment thereof.

27. (Cancelled) The composition of claim 1 wherein the average diameter of the particles is less than about 50 nm.

28. (Cancelled) The composition of claim 1 wherein the polymer is an iontophoretic polymer.

29. (Cancelled) The composition of claim 1 wherein the polymer is a hydrophobic polymer.

30. (Cancelled) The composition of claim 1 wherein the polymer is a hydrophilic polymer.

31. (Cancelled) The composition of claim 1 wherein the polymer is chosen from the group consisting of polyamides, polycarbonates, polyalkylenes, polyalkylene glycols, polyalkylene oxides, polyalkylene terepthalates, polyvinyl alcohols, polyvinyl ethers, polyvinyl esters, polyvinyl halides, polyvinylpyrrolidone, polyglycolides, polysiloxanes, polyurethanes and copolymers thereof, alkyl cellulose, hydroxyalkyl celluloses, cellulose ethers, cellulose esters, nitro celluloses, polymers of acrylic and methacrylic esters, methyl cellulose, ethyl cellulose, hydroxypropyl cellulose, hydroxy-propyl methyl cellulose, hydroxybutyl methyl cellulose, cellulose acetate, cellulose propionate, cellulose acetate butyrate, cellulose acetate phthalate, carboxylethyl cellulose, cellulose triacetate, and cellulose sulphate sodium salt.

32. (Cancelled) The composition of claim 1 wherein the polymer is chosen from the group consisting of poly(methyl methacrylate), poly(ethylmethacrylate), poly(butylmethacrylate), poly(isobutylmethacrylate), poly(hexlmethacrylate), poly(isodecylmethacrylate), poly(lauryl methacrylate), poly(phenyl methacrylate), poly(methyl acrylate), poly(isopropyl acrylate), poly(isobutyl acrylate), poly(octadecyl acrylate), polyethylene, polypropylene poly(ethylene glycol), poly(ethylene oxide), and poly(ethylene terephthalate).

33. (Cancelled) The composition of claim 1 wherein the polymer is chosen from the group consisting of poly(vinyl alcohols), poly(vinyl acetate, poly vinyl chloride polystyrene, polyvinylpryrrolidone, polyhyaluronic acids, casein, gelatin, glutin,

polyanhydrides, polyacrylic acid, alginate, chitosan, poly(methyl methacrylates), poly(ethyl methacrylates), poly(butylmethacrylate), poly(isobutylmethacrylate), poly(hexlmethacrylate), poly(isodecl methacrylate), poly(lauryl methacrylate), poly(phenyl methacrylate), poly(methyl acrylate), poly(isopropyl acrylate), poly(isobutyl acrylate), and poly(octadecl acrylate).

34. (Cancelled) The composition of claim 1 wherein the hydrophilic polymer is a member of the group consisting of proteinaceous materials , peptides, carbohydrates.

35. (Cancelled) A method of delivering a functional composition across keratinized barrier epithelia to a cell, the method comprising introducing the composition of claim 1 at a position that is separated from the cell by a keratinized barrier epithelium, wherein at least a portion of the plurality of particles passes through the keratinized barrier epithelium to the cell.

36. (Cancelled) The method of claim 35 wherein the functional composition is delivered transcutaneously.

37. (Cancelled) The method of claim 35 wherein the composition of claim 1 is prepared as a medicament, and the medicament is administered to a patient.

38. (Cancelled) A solution comprising the composition of claim 1, the solution comprising a concentration of cations between 20 and 2000 millimolar.

39. (Cancelled) The composition of claim 1, further comprising a cation chosen from the group consisting of Ni^{2+}, Mn^{2+}, Mg^{2+}, Ca^{2+}, Al^{3+}, Be^{2+}, Li^{+}, Ba^{2+}, and Gd^{3+}.

40. (Cancelled) A medicament comprising the composition of claim 1.

41. (Cancelled) The medicament of claim 39 further comprising a form selected from the group consisting of granules, tablets, pellets, films, oral, intravenous, subcutaneous, intraperitoneal, intrathecal, intramuscular, inhalation, topical, transdermal, suppository, pessary, intra urethral, intraportal, intraocular, transtympanic, intrahepatic, intra-arterial, intrathecal, transmucosal, coatings, buccal, and combinations thereof.

42. (Cancelled) A method of delivering a functional composition to a patient, the method comprising administering a medicament to the patient that comprises the composition of claim 1.

43. (Cancelled) A cell comprising the composition of claim 1, wherein the plurality of particles is associated with the cell.

44. (Cancelled) A cell comprising the composition of claim 18, wherein the plurality of particles is associated with the cell.

45. (Cancelled) A method of transfecting a cell, the method comprising exposing the cell to the composition of claim 18.

46. (Cancelled) A matrix for binding bioactive or diagnostic particles, the matrix comprising the particles of claim 1 and a binder.

47. (Cancelled) A method of delivering a medical agent to a cell having caveolae, the method comprising: associating the medical agent with an organic functional composition in vitro to make an association of the medical agent and the organic functional composition, wherein the assoication is passable through cellular caveolae for delivery of the medical agent.

48. (Cancelled) The method of claim 47 wherein the association of the agent and the functional composition comprises a particle.

49. (Cancelled) The method of claim 48 wherein the particle has a diameter of less than about 100 nanometers as measured by atomic force microscopy of the particles following drying of the particles.

50. (Cancelled) The method of claim 48 wherein the particle has a diameter of less than about 50 nm.

51. (Cancelled) The method of claim 48 wherein the particle further comprises a surfactant having an HLB value of less than about 6.0 units.

52. (Cancelled) The method of claim 51 wherein the particle has an average diameter of less than about 50 nanometers as measured by atomic force microscopy of the particles following drying of the particles.

53. (Cancelled) The method of claim 51 further comprising exposing the particle to the cell.

54. (Cancelled) The method of claim 47 wherein the association of the agent and the functional composition has a maximum dimension of no more than about 50 nm nanometers as measured by atomic force microscopy following drying of the association of the agent and the functional composition.

55. (Cancelled) The method of claim 47 wherein the functional composition comprises a surfactant.

56. (Cancelled) The method of claim 47 further comprising exposing the association of the agent and the functional composition to the cell.

57. (Cancelled) The method of claim 47 further comprising administering a medicament to a patient, the medicament comprising the association of the medical agent and the organic functional composition.

58. (Cancelled) The method of claim 47 wherein the functional composition comprises a surfactant and a hydrophilic polymer.

59. (Cancelled) The method of claim 47 wherein the agent comprises a bioactive component that a member of the group consisting of peptides, proteins, and carbohydrates.

60. (Cancelled) The method of claim 47 wherein the agent comprises a member of the group consisting of a bioactive component and a diagnostic agent.

61. (Cancelled) The method of claim 47 wherein the agent comprises a fragment of a nucleic acid that comprises a nucleic acid sequence.

62. (Cancelled) The method of claim 61 wherein the functional composition comprises a surfactant.

63. (Cancelled) The method of claim 47 wherein the association is introduced at a position that is separated from the cell by keratinized barrier epithelia, and the association passes through the keratinized barrier epithelia to the cell.

64. (Cancelled) The method of claim 63 further comprising exposing the cell to the association of the agent and the functional composition

65. (Cancelled) The method of claim 47 wherein the functional composition comprises carbon and hydrogen.

Please enter the following claims.

66. (New) A composition comprising:

a plurality of particles including a bioactive component and a cell recognition component, with the particles having an average diameter of less than about 50 nanometers as measured by atomic force microscopy following drying of the particles.

67. (New) A composition comprising:

a plurality of particles comprising a surfactant having an HLB value of less than about 6.0 units associated with a bioactive component and either a polymer or a cell recognition component or a combination thereof, with the particles having an average diameter of less than about 50 nanometers as measured by atomic force microscopy of the particles following drying of the particles

68. (New) The composition of claim 66 wherein the bioactive component comprises a hydrophilic component.

69. (New) The composition of claim 66 wherein the bioactive component comprises a hydrophobic component.

70. (New) The composition of claim 66 wherein the bioactive component is a member of the group consisting of peptides, proteins, and carbohydrates.

71. (New) The composition of claim 66 wherein the bioactive component comprises a polynucleic acid, oligonucleotide, antisense molecule, polypeptide or oligopeptide.

72. (New) The composition of claim 71 where the polynucleotide is an RNA or DNA sequence of more than 1 nucleotide in either single chain, duplex or multiple chain form, or modified forms thereof

73. (New) The composition of claim 66 wherein the bioactive component comprises a member of the group consisting of antigens isolated from pathogens, viral antigens, fungal antigens, parasitic antigens, and inactivated pathogenic organisms.

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74. (New) The composition of claim 66 wherein the bioactive component is a small molecule or inorganic agent.

75. (New) The composition of claim 66 wherein the bioactive component is cisplatin.

76. (New) The composition of claim 66 wherein the bioactive component is a detection agent.

77. (New) The composition of claim 76 wherein the detection agent is a fluorescent molecule.

78. (New) The composition of claim 66 wherein the bioactive component is condensed.

79. (New) The composition of claim 66 wherein the bioactive component is a member of the group consisting of aptamers, mini-chromosomes, steroids, adrenergic, adrenocortical steroid, adrenocortical suppressant, aldosterone antagonist, and anabolic agents; analeptic, analgesic, anesthetic, anorectic, anti-acne agents; anti-adrenergic, anti-allergic, anti-amebic, anti-anemic, and anti-anginal agents; anti-arthritic, anti-asthmatic, anti-atherosclerotic, antibacterial, and anticholinergic agents; anticoagulant, anticonvulsant, antidepressant, antidiabetic, and antidiarrheal agents; antidiuretic, anti-emetic, anti-epileptic, antifibrinolytic, and antifungal agent; antigens, antihemorrhagic,

antiinflammatory, antimicrobial, antimigraine, and antimiotic agents; antimycotic, antinauseant, antineoplastic, antineutropenic, and antiparasitic agents; antiproliferative, antipsychotic, antirheumatic, antiseborrheic, and antisecretory agents; antispasmodic, antihrombotic, anti-ulcerative, antiviral and appetite suppressant agents.

80. (New) The composition of claim 66 wherein the bioactive component is a member of the group consisting of blood glucose regulator, bone resorption inhibitor, bronchodilator, cardiovascular, and cholinergic agents; fluorescent, free oxygen radical scavenger, gastrointestinal motility effector, glucocorticoid, and hair growth stimulant agent; hemostatic, histamine H_2 receptor antagonists; hormone; hypocholesterolemic, and hypoglycemic agents; hypolipidemic, hypotensive, and imaging agents, immunizing and agonist agents; metals, metal chelates, mood regulators, mucolytic, mydriatic, nasal decongestant; neuromuscular blocking agents; neuroprotective, NMDA antagonist, non-hormonal sterol derivative, peptide nucleic acids, plasminogen activator, and platelet activating factor antagonist agent.

81. (New) The composition of claim 66 wherein the bioactive component is a member of the group consisting of platelet aggregation inhibitor, protein antibodies, psychotropic, radioactive, scabicide, and sclerosing agents; sedative, sedative-hypnotic, selective adenosine A1 antagonist, serotonin antagonist, and serotonin inhibitor agent; serotonin receptor antagonist, steroid, thyroid hormone, thyroid hormone, thyroid inhibitor agent; thyromimetic, tranquilizer, amyotrophic lateral sclerosis, cerebral ischemia, Pagel's disease agent; unstable angina, vasoconstrictor, vasodilator, wound healing, xanthine oxidase inhibitor agent; and immunological agents.

82. (New) The composition of claim 66 wherein the bioactive component is a combination of two or more bioactive components.

83. (New) The composition of claim 66 wherein the cell recognition component is a ligand.

84. (New) The composition of claim 66 wherein the cell recognition component comprises peptide hormone, antibody, tenascin, hyaluronan, or polyvinylpyrrolidone, or a fragment thereof.

85. (New) The composition of claim 66 wherein the cell-recognition component is a ligand that targets a receptor for tenascin, hyaluronan or polyvinylpyrrolidone, an antigen, a cell surface receptor involved in receptor mediated endocytosis, a growth factor receptor, a cell adhesion molecule, or an integrin.

86. (New) The composition of claim 66 wherein the cell-recognition component is a combination of two or more cell recognition components.

87. (New) The composition of claim 67 wherein the surfactant is a non-ionic surfactant.

88. (New) The composition of claim 67 wherein the surfactant has an HLB value of less than about 5.0 units.

89. (New) The composition of claim 67 wherein the surfactant has a critical micelle concentration of less than about 10 micromolar.

90. (New) The composition of claim 67 wherein the surfactant is selected from the group consisting of cetyl alcohol, 2, 4, 7, 9-tetramethyl-5-decyn-4, 7-diol, molecules containing an acetylenic diol portion, and blends of 2, 4, 7, 9-tetramethyl-5-decyn-4, 7-diol.

91. (New) The composition of claim 67 wherein the surfactant is a combination of two or more surfactants.

92. (New) The composition of claim 67 further comprising a biocompatible oil or a combination of two or more biocompatible oils.

93. (New) The composition of claim 67 further comprising a water-miscible solvent or a combination of water-miscible solvents.

94. (New) The composition of claim 67, further comprising a cation chosen from the group consisting of Ni^{2+}, Mn^{2+}, Mg^{2+}, Ca^{2+}, Al^{3+}, Be^{2+}, Li^{+}, Ba^{2+}, and Gd^{3+}, and combinations thereof.

95. (New) The composition of claim 67 wherein the polymer is an iontophoretic polymer.

96. (New) The composition of claim 67 wherein the polymer is a hydrophobic polymer.

97. (New) The composition of claim 67 wherein the polymer is a hydrophilic polymer.

98. (New) The composition of claim 67 wherein the polymer is chosen from the group consisting of polyamides, polycarbonates, polyalkylenes, polyalkylene glycols, polyalkylene oxides, polyalkylene terepthalates, polyvinyl alcohols, polyvinyl ethers, polyvinyl esters, polyvinyl halides, polyvinylpyrrolidone, polyglycolides, polysiloxanes, polyurethanes and copolymers thereof, alkyl cellulose, hydroxyalkyl celluloses, cellulose ethers, cellulose esters, nitro celluloses, polymers of acrylic and methacrylic esters, methyl cellulose, ethyl cellulose, hydroxypropyl cellulose, hydroxy-propyl methyl cellulose, hydroxybutyl methyl cellulose, cellulose acetate, cellulose propionate, cellulose acetate butyrate, cellulose acetate phthalate, carboxylethyl cellulose, cellulose triacetate, and cellulose sulphate sodium salt.

99. (New) The composition of claim 67 wherein the polymer is chosen from the group consisting of poly(methyl methacrylate), poly(ethylmethacrylate), poly(butylmethacrylate), poly(isobutylmethacrylate), poly(hexlmethacrylate),

poly(isodecylmethacrylate), poly(lauryl methacrylate), poly(phenyl methacrylate), poly(methyl acrylate), poly(isopropyl acrylate), poly(isobutyl acrylate), poly(octadecyl acrylate), polyethylene, polypropylene poly(ethylene glycol), poly(ethylene oxide), and poly(ethylene terephthalate).

100. (New) The composition of claim 67 wherein the polymer is chosen from the group consisting of poly(vinyl alcohols), poly(vinyl acetate, poly vinyl chloride polystyrene, polyvinylpryrrolidone, polyhyaluronic acids, casein, gelatin, glutin, polyanhydrides, polyacrylic acid, alginate, chitosan, poly(methyl methacrylates), poly(ethyl methacrylates), poly(butylmethacrylate), poly(isobutylmethacrylate), poly(hexlmethacrylate), poly(isodecl methacrylate), poly(lauryl methacrylate), poly(phenyl methacrylate), poly(methyl acrylate), poly(isopropyl acrylate), poly(isobutyl acrylate), and poly(octadecl acrylate).

101. (New) The composition of claim 67 wherein the hydrophilic polymer is a member of the group consisting of proteinaceous materials, peptides, carbohydrates.

102. (New) The composition of claim 67 wherein the polymer is a combination of two or more polymers.

103. (New) A method of delivering a bioactive component to a target cell, the method comprising exposing a cell to the composition of claim 66 that binds to a targeted receptor.

104. (New) The method of claim 103 wherein the cell is a cancer cell or an antigen presenting cell.

105. (New) A method of delivering a bioactive component to a cell having caveolae, the method comprising exposing a cell to the composition of claim 66 that binds to a targeted receptor, wherein the composition is passable through cellular caveolae for delivery of the bioactive component.

106. (New) The method of claim 105 wherein the cell is a cancer cell or an antigen presenting cell.

107. (New) The composition of claim 66, wherein the plurality of particles is associated with the cell.

108. (New) A method of transforming a cell, the method comprising exposing the cell to the composition of claim 66.

109. (New) A method of delivering a bioactive component across keratinized barrier epithelia to a cell, the method comprising introducing the composition of claim 66 at a position that is separated from the cell by a keratinized barrier epithelium, wherein at least a portion of the plurality of particles passes through the keratinized barrier epithelium to the cell.

110. (New) The method of claim 109 wherein the bioactive component is delivered transcutaneously.

111. (New) The method of claim 109 wherein the composition of claim 66 is prepared as a medicament, and the medicament is administered to a patient.

112. (New) A medicament comprising the composition of claim 66.

113. (New) The medicament of claim 112 further comprising a form selected from the group consisting of granules, tablets, pellets, films, oral, intravenous, subcutaneous, intraperitoneal, intrathecal, intramuscular, inhalation, topical, transdermal, suppository, pessary, intra urethral, intraportal, intraocular, transtympanic, intrahepatic, intra-arterial, intrathecal, transmucosal, coatings, buccal, and combinations thereof.

114. (New) A method of delivering a medicament to a patient, wherein the composition of claim 112 is administered to the patient by oral, intravenous,

subcutaneous, intraperitoneal, intrathecal, intramuscular, inhalation, topical, transdermal, suppository, pessary, intra urethral, intraportal, intraocular, transtympanic, intrahepatic, intra-arterial, intrathecal, transmucosal, coatings, or buccal, or combinations thereof.

115. (New) A matrix for binding the particles of composition 66, the matrix comprising the particles and a binder.

116. (New) A method of delivering a bioactive component to a cell having caveolae, the method comprising: associating the bioactive component with an organic functional component in vitro to make an association of the bioactive component and the organic functional composition, wherein the association is passable through cellular caveolae for delivery of the medical agent.

117. (New) The method of claim 116 wherein the association of the bioactive component and the organic functional component has a diameter of less than about 50 nanometers as measured by atomic force microscopy following drying of the association of the agent and the functional composition.

118. (New) The method of claim 116 further comprising exposing the association of the bioactive component and the organic functional component to the cell.

119. (New) The method of claim 116 further comprising administering a medicament to a patient, the medicament comprising the association of the bioactive component and the organic functional component.

120. (New) The method of claim 116 wherein the association of the bioactive component and the organic functional component comprises a particle.

121. (New) The method of claim 120 wherein the particle has a diameter of less than about 50 nanometers as measured by atomic force microscopy of the particles following drying of the particles.

122. (New) The method of claim 120 wherein the particle further comprises a surfactant having an HLB value of less than about 6.0 units.

123. (New) The method of claim 122 further comprising exposing the particle to the cell.

124. (New) The method of claim 116 wherein the bioactive component is a combination of bioactive components.

125. (New) The method of claim 116 wherein the bioactive component is a detection agent or a combination of detection agents.

126. (New) The method of claim 116 wherein the bioactive component is a member of the group consisting of peptides, proteins, and carbohydrates.

127. (New) The method of claim 116 wherein the bioactive component comprises a fragment of a nucleic acid that comprises a nucleic acid sequence.

128. (New) The method of claim 116 wherein the organic functional component comprises a surfactant or a combination of surfactants.

129. (New) The method of claim 116 wherein the organic functional component comprises a surfactant or a combination of surfactants and a hydrophilic polymer or a combination of hydrophilic polymers.

130. (New) The method of claim 116 wherein the organic functional component comprises carbon and hydrogen.

131. (New) The method of claim 116 wherein the association is introduced at a position that is separated from the cell by keratinized barrier epithelia, and the association passes through the keratinized barrier epithelia to the cell.

132. (New) The method of claim 131 further comprising exposing the cell to the association of the bioactive component and the organic functional component.